

IX.—On a small Collection of Orthopterous Insects of the Families Phasmidæ and Mantidæ from Australia and New Britain, with Descriptions of four new Species. By Prof. J. WOOD-MASON, Deputy Superintendent, Indian Museum, Calcutta.

THE insects described in the following pages have all been recently received by me from my valued correspondent Mr. Charles French, of the Royal Botanic Gardens, Melbourne, South Australia, who is responsible for the correctness of the localities here given.

The occurrence in New Britain of near allies of two species from the Fiji Islands is of particular interest.

Family Phasmidæ.

1. *Bacteria Frenchi*, n. sp.

♀. Slender, cylindrical, uniform dark brown. Head slightly narrowed from before backwards, and armed right between the eyes with a pair of minute spines. A most distinct raised median dorsal line runs along the whole length of the body. Mesonotum and metanotum granulated, some of the granules being developed into minute spines, especially on the former. Both divisions of the metanotum and the dorsal arcs of the five basal segments of the abdomen each with a small rounded lobe at the hinder extremity. Abdomen above sparingly obsoletely granulated, and with three smooth longitudinal ridges on each side of the middle line on all the segments except the last two, on to which the three median ones only are continued, and gradually attenuated from the base of its fifth segment to its extremity; two terminal segments strongly carinate, especially the last, which is acute-angled at the extremity; sixth ventral segment with an obtuse rounded process at its hinder end. The operculum, which is longitudinally but slightly convex, rounded at the free end, and carinate along its apical half, reaches only to about the middle of the last dorsal segment. Cerci minute, invisible from above. Legs simple; first joint of the tarsus in all rather longer than the rest taken together.

Total length 2 inches 5 lines; antennæ 9·75 lines; head 1·25 line; prothorax 1 line; mesothorax 6·25 lines; metathorax 4 lines; abdomen $13 + 3·5 = 16·5$ lines; fore femur 7 lines, tibia 7·5; intermediate femur 6 lines, tibia 7·5; posterior femur 7·5 lines, tibia 9; breadth about 1 line.

Hab. North Australia (*C. French*). A single specimen, preserved in alcohol.

The insect (*B. tenuis*, Hope, MS.) figured by Westwood, on pl. xxvii. fig. 2 of his monograph, as the male of *B. cænosa* is possibly the opposite sex of this species, slight indications of lobes at the ends of the segments of the abdomen being to be seen in Westwood's figure.

2. *Phibalosoma novæ-britanniæ*, n. sp.

♀. Closely allied to *P. pythonius* and to *P. apollonius*, both from the Fiji Islands. It has the spiny thorax of the latter, and the abdomen of the former. It differs from *P. pythonius* not only in its spiny thorax and shorter antennæ, but also in the form of the fifth, sixth, and seventh dorsal segments of the abdomen, which gradually widen from the base to the apex, so that the abdomen has in this part conspicuously serrated margins; and from *P. apollonius* not only in the form of the abdomen, but apparently also in its almost completely triquetrous four posterior thighs and tibiæ, all of which have a row of sharp spines along the middle of the under surface, and in having the first joint of all the tarsi longer and slenderer. The mesosternum has two parallel rows of spines along the middle, of which no mention is made by Westwood in his description of the latter. The fore legs are unfortunately wanting.

Total length 8·5 inches; antennæ 24·5 lines; head 6·5 lines; prothorax 4·5 lines; mesothorax 20·5 lines; metathorax 12·5 lines; abdomen 4 inches 3 lines + 9 lines + operculum 7 lines = 5 inches 7 lines; intermediate femur 20, tibia 20, tarsus 9·75 lines; posterior femur 22, tibia 24, tarsus 11 lines.

Hab. New Britain (*C. French*). A single specimen, preserved in alcohol.

3. *Phyllium novæ-britanniæ*, n. sp.

♀. Closely allied to *P. lobiventre* from the Fiji Islands, which it resembles in the form and ornamentation of the mesonotum, in the granulation of the head, legs, and margins of the segments of the body, in the structure of the legs and tegmina, and, finally, in size, but from which it differs in the rudimentary condition of the lobe on the inner side of the fore tibiæ, and, conspicuously, in the form of the abdomen; this widens gradually to the middle of the third segment, whence its sides converge slightly and gradually to the middle of the sixth segment, which curves inwards to the base of the seventh, this with the last two forming a triangular mass with slightly hollow sides.

Total length 2 inches 4·5 lines; head 2·75 lines; prothorax